

Listing of the claims:

I. (Currently Amended) A device for infusion therapy comprising:  
a balloon catheter;  
a guide wire to be inserted into a guide lumen of the balloon catheter;  
pulsation detection means for detecting pulsation of the heart; and  
stroke means for causing said guide wire to stroke in synchronization with the pulsation of the heart based on a detection signal of the pulsation detection means,

wherein said balloon catheter is a balloon catheter for insertion into a blood vessel in which a plurality of lumens extending along an axis are formed in one catheter body, and two expandable balloons expanding in a direction perpendicular to the axis ~~oftoward outside with respect to~~ the catheter body are arranged axially in seriesparallel, and the balloon catheter previously combined with the guide wire is inserted into the blood vessel ~~a coronary vein in reverse of the blood flow and when inserted~~ are adjusted so that a blood vessel area surrounding the lesion is placed between the two balloons, and wherein said plurality of lumens comprises:

an infusion lumen that has an infusion hole communicating with an outside of the catheter body between said two balloons, and can supply drugs, cells, a treatment instrument, or the like to the outside of the catheter body through said infusion hole;

balloon lumens that communicate with insides of said two balloons to control expansion of said balloons; and

a bypass lumen that communicates with the outside of the catheter body with bypass holes in both a each position distal the two balloons and proximal a tip of the catheter, which is on each side of outside of said two balloons with respect to a tip of the catheter body, and bypasses an occluded area formed by the two balloons to allow blood flow, wherein the bypass lumen is also; and

thea guide lumen into which thea guide wire that guides the catheter body to a target position is inserted, wherein when in the targeted position, the guide wire is partially removed from the guide lumen to a position distal the bypass holes to work with the stroke means to allow for the bypass lumensaid guide lumen communicating with the outside of the

~~catheter body in each position distal and proximal, which is outside of said two balloons to also serve as said bypass lumen, having one or more bypass holes in a position closer to a tail end than the two balloons.~~

2. (Previously Presented) A device for infusion therapy according to claim 1, wherein on balloon lumen communicates with the insides of said two balloons.

3. (Cancelled).

4. (Currently Amended) A device for infusion therapy according to claim 1, wherein said device is a catheter for insertion into a coronary vein.

5. (Cancelled).